

# **GHAJAR**

# **EXHIBIT 20**

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

VIDEO-RECORDED DEPOSITION UPON ORAL EXAMINATION OF  
EMILY BENDER, Ph.D.  
\*\*CONFIDENTIAL TESTIMONY\*\*  
\*\*Page 195 Line 4 through Page 198 Line 4\*\*

\*\*Page 195 Line 4 through Page 198 Line 4\*\*

16 9:20 A.M.  
17 FEBRUARY 25, 2025  
18 1215 FOURTH AVENUE, SUITE 1350  
19 SEATTLE, WASHINGTON  
20  
21  
22  
23  
24 REPORTED BY: CARLA R. WALLAT, CRR, RPR  
25 WA CCR 2578, OR CSR 16-0443, CA CSR 14423

1	A. Uh-huh.	03:39PM
2	Q. And so you agree with Dr. Ungar that the model	03:39PM
3	weights are nonreversible in the sense that they cannot	03:40PM
4	be used to regenerate the specific texts from which	03:40PM
5	they were derived?	03:40PM
6	A. I -- from what I know of the literature, I	03:40PM
7	believe it is not possible to get back the full input	03:40PM
8	training corpus. There is work by Nicholas Carlini, et	03:40PM
9	al., showing that you can get snippets coming out, but	03:40PM
10	I don't think you can reverse engineer the whole	03:40PM
11	training corpus.	03:40PM
12	Q. Do you know whether Carlini's papers were in	03:40PM
13	reference to large language models or diffusion models?	03:40PM
14	A. The Carlini paper that I'm thinking of looking	03:40PM
15	at personally identifiable information was looking at	03:40PM
16	large language models, yes.	03:40PM
17	Q. Is that a paper that you reviewed or relied on	03:40PM
18	in preparing your report?	03:40PM
19	A. No. It's something that I've read in other	03:40PM
20	contexts.	03:40PM
21	Q. In paragraph 183 [sic] you say, "This lack of	03:41PM
22	reversibility does not negate the importance of	03:41PM
23	original texts to the process of LLM development."	03:41PM
24	Did Dr. Ungar say anywhere in his report that	03:41PM
25	original texts are not important to the process of LLM	03:41PM

1	A. So you've just said the model's used to	03:48PM
2	synthesize text, so what is the model? The model is a	03:48PM
3	collection of weights. Where do the weights come from?	03:48PM
4	The weights come from processing input text, right?	03:48PM
5	If you don't have input text, it doesn't	03:48PM
6	matter how clever the training algorithm, it doesn't	03:48PM
7	matter how much compute time you use. If there's no	03:48PM
8	input text, there's no model.	03:48PM
9	And this is -- the connection that I see here	03:48PM
10	is that the outputs are what we care about, supposedly,	03:48PM
11	I mean, I don't, but people do, and in order to get	03:48PM
12	those outputs, you need an algorithm, you need the	03:48PM
13	compute time, you also need the inputs. And the inputs	03:49PM
14	are what's not so closed.	03:49PM
15	Q. Okay. And so you are -- I think you are not a	03:49PM
16	lawyer you said?	03:49PM
17	A. Not a lawyer.	03:49PM
18	Q. And not a copyright expert?	03:49PM
19	A. Correct.	03:49PM
20	Q. Okay.	03:49PM
21	A. Also not a good copywriter apparently with my	03:49PM
22	typos.	03:49PM
23	Q. And you're not rendering any opinion that the	03:49PM
24	outputs for -- any output from Llama has ever been	03:49PM
25	substantially similar to the weights or code comprising	03:49PM

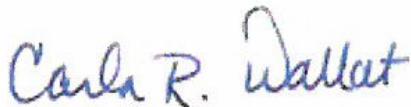
1	the model, right?	03:49PM
2	A. So output is text, and weights and code are	03:49PM
3	numerical. So I wouldn't expect those to be similar.	03:49PM
4	Q. Okay. Those are different things?	03:49PM
5	A. Different things. There's a -- there's a	03:49PM
6	dependency between them, but they're different things.	03:49PM
7	Q. Okay. What are you being paid in connection	03:49PM
8	with your work on this case?	03:49PM
9	MR. HUTCHINSON: Objection. Asked and	03:50PM
10	answered.	03:50PM
11	MS. DUNNING: I haven't asked that	03:50PM
12	question at all yet.	03:50PM
13	A. My fee for this work is \$2,000 an hour.	03:50PM
14	Q. (BY MS. DUNNING) Okay. And so at roughly	03:50PM
15	32 hours, you've spent -- you're expecting to be paid	03:50PM
16	somewhere north of \$64,000?	03:50PM
17	A. Correct.	03:50PM
18	Q. How did you determine the rate to charge for	03:50PM
19	the work on this case?	03:50PM
20	A. As it happens, I have a consulting fee posted	03:50PM
21	on my web page and it was posted as \$2,000 an hour	03:50PM
22	before I was approached for this case.	03:50PM
23	Q. Okay. So the rate you're charging in this	03:50PM
24	case is consistent with the consulting fee you charge	03:50PM
25	for other work?	03:50PM

1 REPORTER'S CERTIFICATE

2 I, CARLA R. WALLAT, CCR, CSR, RPR, CRR, the undersigned  
3 Certified Court Reporter, authorized to administer oaths and  
4 affirmations in and for the states of Washington (2578),  
5 Oregon (16-0443), and California (14423) do hereby certify:

6 That the sworn testimony and/or proceedings, a  
7 transcript of which is attached, was given before me at the  
8 time and place stated therein; that any and/or all witness(es)  
9 were duly sworn to testify to the truth; that the sworn  
10 testimony and/or proceedings were by me stenographically  
11 recorded and transcribed under my supervision. That the  
12 foregoing transcript contains a full, true, and accurate  
13 record of all the sworn testimony and/or proceedings given and  
14 occurring at the time and place stated in the transcript; that  
15 a review of which was not requested; that I am in no way  
16 related to any party to the matter, nor to any counsel, nor do  
17 I have any financial interest in the event of the cause.

18 WITNESS MY HAND AND DIGITAL SIGNATURE this 6th day of  
19 March 2025.

20  
21  
22 

23 CARLA R. WALLAT, RPR, CRR

24 Washington CCR #2578, Expires 1/5/2026

Oregon CSR #16-0443, Expires 9/30/2027

California CSR #14423, Expires 1/31/2026